

REMARKS

Claim 1 has been amended. No new matter has been introduced. Support for the amended claims and the new claims is found throughout the specification, claims, and drawings as originally filed. Twenty-three (23) claims are pending and remain for consideration. Reconsideration of the pending claims and further examination of the application is respectfully requested.

IN THE CLAIMS

35 U.S.C. § 102

Claims 1-23 are rejected under 35 U.S.C. § 102, as anticipated by U.S. Patent No. EP 0890470, to Sawamoto. This rejection is respectfully traversed.

Claim 1 recites a target object position sensing apparatus for a host vehicle. The target object position sensing apparatus comprises a lane detection apparatus provided on the host vehicle. The lane detection apparatus includes an image acquisition means adapted to capture an image of at least a part of the road ahead of the host vehicle. A vehicle path estimation means is adapted to estimate a projected path for the host vehicle. A target vehicle detection apparatus is located on the host vehicle. The target vehicle detection apparatus is adapted to identify the position of any target object located on the road ahead of the host vehicle. The position includes data representing the distance of the target vehicle from the host vehicle.

Although the rejection is traversed, claim 1 has been amended, without prejudice or disclaimer, to present the claims in better form for consideration. In particular, claim 1 has been amended to replace the word “determine” with the word “predict” with regard to the function of first data of processing means. That prediction is involved is clearly inherent in the description of the invention as filed, particularly, with reference to lines 4-8 of page 14 of the present application.

As amended, claim 1 further recites first data processing means that is adapted to predict a target lane in which the host vehicle will be located when it has travelled along the projected path by the distance to the target object. Second processing means is adapted to compare the position of the target vehicle determined by the target

vehicle detection means with the position of the target lane to provide a processed estimate of the actual position of the target object.

Sawamoto " calculates a path for a host vehicle. The earliest determination of a lane in which the host vehicle is travelling is based on either the lane in which the vehicle is currently occupying or that in which it is currently moving into. There is no prediction of a target lane in which the host vehicle will be located when it has travelled along the projected path by a distance to a target object. The present invention does not determine the target lane in which the host vehicle is located when the host vehicle has travelled along the projected path by an appropriate distance, it predicts where the host vehicle will be at some future time. No such prediction is made in Sawamoto. Sawamoto merely relies on determining whether a vehicle is in its current lane or is presently changing lanes, in which case, it is assumed that the vehicle will be one lane to the appropriate side of its current lane.

Accordingly, as the first data processing means of Sawamoto does not predict a target lane in which the host vehicle will be located when it has travelled along the projected path by a distance to a target object, then the claim, particularly as amended, is novel.

It is also noted that the Examiner states, on page 3 of the Official Letter, with reference to Figure 7 in combination with page 9, lines 44 etc. of Sawamoto, that calculation means of the prior art is able to predict the position of the host vehicle in a future path. However, there is no teaching to predict where along a projected path the vehicle would be once it has travelled a distance to a target object and, from this, to determine whether a host vehicle and a target vehicle will be in the same range. Sawamoto calculates a line by assuming the host vehicle will remain in the present lane unless it is determined that it is changing lanes. The presently claimed apparatus does away with the need to determine whether the vehicle is changing lanes. It therefore goes against the teaching of Sawamoto and one skilled in the art of the invention would not come up with the claimed invention having reading the teachings of Sawamoto.

In view of the foregoing remarks, it is believed that the Application is in condition for Allowance. Accordingly, an early Notice thereof is respectfully requested. However, if the Examiner feels that he is unable to issue a Notice of Allowance for any reason, Applicants request that the Examiner contact the undersigned attorney at 419.255.5900 to discuss application further.

Respectfully submitted,

Thedford L. Hitaffer
Reg. No. 38,490

MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fourth Floor
720 Water Street
Toledo, Ohio 43604
(419) 255-5900